

I CLAIM:

1. (Currently amended) A digital household automation control system, in whose covering area there are electric appliances connecting with a ground line and a live line of an external power source with their switches, comprising:

an input with a transmitting unit for emitting RF signals;

a relay device, including:

an RF relay unit for receiving the RF signals from an input and converts it into differently coded RF signals to said infrared relay unit, and

an infrared relay unit for converting said RF signals into infrared signals in order to control said electric appliances;

a controller disposed on said switch having a receiver, a central processor and a controlling unit controlled by said central processor; wherein, said receiver receives infrared signals from the relay device and sends them to said central processor for comparing and analyzing, and thereby driving said controlling unit to control said controller.

2. (Currently amended) A digital household automation control system as claimed in claim 1, wherein said relay transmitter also includes an infrared signal receiving

unit and a memory unit connecting to said infrared signal receiving unit; moreover, said infrared signal receiving unit receives infrared signals and then sends said infrared signals to said memory unit for memorizing.

- 5 3. (Currently amended) A digital household automation control system as claimed in claim 1, wherein said input is a remote control.
4. A digital household automation control system as claimed in claim 1, wherein said input is a computer.
- 10 5. (Currently amended) A digital household automation control system as claimed in claim 4, wherein said computer connects with a network adapter to control via the network.
6. A digital household automation control system as claimed in claim 1, wherein said input is a mobile communication unit for controlling said relay unit.
- 15 7. (Currently amended) A digital household automation control system as claimed in claim 1, wherein said input is a detecting actuator, and it includes a detecting unit for detecting and receiving any change of external environment, a central unit for processing the signals from said detecting unit and a transmitting unit for emitting said signals to control said relay device.
- 20 8. (Currently amended) A digital household automation control system as claimed in claim 1, wherein said input
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is attached with an RF relay unit, and said controller
is attached with an RF signal transmitting unit; moreover,
after said controller is adjusted and switched by the
controlling of said RF signals, said signal transmitting
unit will send a feedback and said feedback will be received
by said RF relay unit for a user to know the working status
of said controller.

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